S. Hrg. 102–74

NOMINATIONS OF JACK LENTFER AND JOHN REYNOLDS

HEARING

BEFORE THE

COMMITTEE ON COMMERCE SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

ON

JACK LENTFER AND JOHN E. REYNOLDS III, TO BE MEMBERS, MARINE MAMMAL COMMISSION

APRIL 24, 1991

Printed for the use of the Committee on Commerce, Science, and Transportation

43–250 O

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1991

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

S261-50.

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ERNEST F. HOLLINGS, South Carolina, *Chairman*

DANIEL K. INOUYE, Hawaii
WENDELL H. FORD, Kentucky
J. JAMES EXON, Nebraska
AL GORE, Tennessee
JOHN D. ROCKEFELLER IV, West Virginia
LLOYD BENTSEN, Texas
JOHN F. KERRY, Massachusetts
JOHN B. BREAUX, Louisiana
RICHARD H. BRYAN, Nevada
CHARLES S. ROBB, Virginia

JOHN C. DANFORTH, Missouri
BOB PACKWOOD, Oregon
LARRY PRESSLER, South Dakota
TED STEVENS, Alaska
ROBERT W. KASTEN, JR., Wisconsin
JOHN McCAIN, Arizona
CONRAD BURNS, Montana
SLADE GORTON, Washington
TRENT LOTT, Mississippi

KEVIN G. CURTIN, *Chief Counsel and Staff Director*
WALTER B. MCCORMICK, JR., *Minority Chief Counsel and Staff Director*

TABLE OF CONTENTS

	Page
Opening statement of Senator Gore	1
Opening statement of Senator Stevens	2

LIST OF WITNESSES

Lentfer, Jack W.	9
Biographical scketch	3
Prehearing questions of the Chairman and the answers thereto	6
Reynolds, John Elliott, III	16
Biographical sketch	11
Prehearing questions of the Chairman and the answers thereto	13

NOMINATIONS OF JACK LENTFER AND JOHN REYNOLDS

WEDNESDAY, APRIL 24, 1991

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The committee met, pursuant to notice, at 2:15 p.m. in room 420, Hart Senate Office Building, Hon. John F. Kerry, presiding.

Staff members assigned to this hearing: Penny Dalton and Becky Kojm, professional staff members; and Leslie Blosse, minority professional staff member.

OPENING STATEMENT BY SENATOR KERRY

Senator KERRY. This hearing of the committee will come to order.

Welcome to the hearings on the nominations of John E. Reynolds and Jack Lentfer to be members of the Marine Mammal Commission. Welcome, gentlemen. We are glad to have you here today.

We expect this to be one of our most controversial hearings on appointments. Actually, that was meant to make you smile. It is not controversial at all. Relax. We are going to have a good time and this really will not take very long at all, I promise you.

We are a little pressed for time because we have another hearing after this one. I do not know what is happening in this committee today, but it seems to be hearing day. Our next hearing is on arctic policy, as a matter of fact. So, we are a little bit under the gun. I know you will not complain about having a short hearing. We are delighted to welcome both of you here and congratulate both of you on your nominations.

As you know, 20 years ago the Marine Mammal Commission was established to provide oversight and recommendations for all of our national agencies, with respect to all of the marine mammal issues. And whether it has been working with the State Department or whether it is advising the International Whaling Commission, or whether it is simply the permitting process itself, there are some very important choices to be made that affect, not only marine mammals, but our oceans and waterways, and the ecosystem itself, of which they are such a critical element.

In 1988, we passed the reauthorization of the Marine Mammal Protection Act and needless to say, there is some implementation and fine tuning yet to be performed with respect to the changes therein. Some major issues stillgenerate great tension regarding tuna and dolphin relationships and a host of other tricky

problems which relate to balancing commercial enterprise and to the balance of protection of our environment.

We are pleased to welcome two nominees, both of whom come to us, I think, with distinguished records in this field. It is nice to see nominees who are so steeped in the background of the area with which they will be concerned. It isn't always true of some of the nominations that we consider here.

Dr. Reynolds is a distinguished professor at Eckerd College in St. Petersburg, FL, and currently the chairman of the Marine Mammal Commission Scientific Advisory Committee. His experience in this field is extensive and I think qualifies him for this position.

Mr. Lentfer, through 25 years of experience in studying marine mammals, has shown an extraordinary ability and capacity for sensitivity and awareness of all of the issues that he would confront as a member of the Commission. So, I am delighted to welcome you here.

I see there are some family members present. We would be delighted to have you introduce your family if you want when your moment to speak comes. And I am delighted to be joined by my colleague, the distinguished Senator from Alaska, who just presented me with "Selected Marine Mammals of Alaska" for bedtime reading. It is a big volume, I notice.

Senator Stevens.

OPENING STATEMENT BY SENATOR STEVENS

Senator STEVENS. Thank you, Mr. Chairman. I welcome you, Dr. Reynolds. I am pleased to see a fellow Alaskan here.

Jack Lentfer has worked for both the Federal and the State governments and he is the editor of that book I just gave you. I believe his specialty is polar bears. He currently is a member of the Commission's Scientific Advisory Panel, and has worked with the National Marine Fisheries Service on sea lion recovery, and on our Alaska Board of Game. I think Jack's long history in the marine mammal area will be of great benefit to the Commission and I am very pleased to see him nominated for this position.

I have looked over your background, too, Dr. Reynolds. We welcome you and your participation in this. We are happy to have you a part of the hearing.

Senator KERRY. Thank you very much, Senator.

[The biographical sketch and prehearing questions and answers follow:]

ERNEST F. HOLLINGS, SOUTH CAROLINA, CHAIRMAN
DANIEL K. INOUYE, HAWAII
WENDELL H. FORD, KENTUCKY
J. JAMES EXON, NEBRASKA
ALBERT GORE, JR., TENNESSEE
JOHN D. ROCKEFELLER IV, WEST VIRGINIA
LLOYD BENTSEN, TEXAS
JOHN F. KERRY, MASSACHUSETTS
JOHN B. BREAUX, LOUISIANA
RICHARD H. BRYAN, NEVADA
CHARLES S. ROBB, VIRGINIA
JOHN C. DANFORTH, MISSOURI
BOB PACKWOOD, OREGON
LARRY PRESSLER, SOUTH DAKOTA
TED STEVENS, ALASKA
ROBERT W. KASTEN, JR., WISCONSIN
JOHN McCAIN, ARIZONA
CONRAD BURNS, MONTANA
SLADE GORTON, WASHINGTON
TRENT LOTT, MISSISSIPPI
KEVIN G. CURTIN, CHIEF COUNSEL AND STAFF DIRECTOR
WALTER B. McCORMICK, JR., MINORITY CHIEF COUNSEL AND STAFF DIRECTOR

United States Senate
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
WASHINGTON, DC 20510–6125

STATEMENT FOR COMPLETION BY PRESIDENTIAL NOMINEES

(If more space is needed, please use attached REMARKS sheet)

A. BIOGRAPHICAL DATA

1. Name: Lentfer (Last) Jack (First) _____ (Other)

   Address: P.O. Box 2617 (Current residence) P.O. Box 2617 (Business)

   Homer, Alaska 99603 Homer, Alaska 99603

2. Position to which nominated: Marine Mammal Commission Date of nomination: Jan. 30, 1991

3. Date of birth: May (month) 13, (day) 1931 (year) Place of birth: Livingston, Montana

4. Marital status: Married Full name of Spouse: Mary R. Lentfer

5. Names and ages of children: Karen - 27
   Susan - 25
   Henry - 24

6. Education:

Institution	Dates attended	Degrees received	Dates of degrees
Montana State University	1952-54	MS.-Wildlife Management	1955
Montana State University	1948-52	B.S.-Fish and Wildlife Management	1952

7. Employment record: List all positions held since college, including the title or description of job, name of employer, location of work, and dates of inclusive employment.

From	To	Name of employer	Address	Type of work
Please see enclosed vitae.				

8. Government experience: List any experience in or direct association with Federal, State, or local governments including any advisory, consultative, honorary or other part-time service or positions.

Member, Alaska Board of Game
Member, Scientific Advisory Committee to Marine Mammal Comm.
Member, National Marine Fisheries Service sealion recovery team
Contractor, Alaska Department of Fish and Game
Contractor, Marine Mammal Commission
Employee, Alaska Department of Fish and Game
Employee, U.S. Fish and Wildlife Service
Employee, Montana Department of Fish and Game

9. Political affiliations activities: List all memberships and offices held in or financial contributions and services rendered to all political parties or election committees during the last 10 years.

None

10. Memberships: List all memberships and offices held in professional, fraternal, scholarly, civic, charitable, and other organizations.

Wildlife Society
Society for Marine Mammalogy
American Society of Mammalogists
Arctic Institute of North America
International Bear Association
Polar Bear Specialists Group
President, Alaska Chapter, Wildlife Society
Board of Directors, Center for Alaskan Coastal Studies (non-profit educational)
Kachemak Bay State Park Citizens Advisory Committee

11. Honors and awards: List all scholarships, fellowships, honorary degrees, honorary society memberships, and any other special recognitions for outstanding service or achievement.

Undergraduate scholarship, Montana State University
U.S. Fish and Wildlife Service Special Award - Rampart Dam Report
U.S. Fish and Wildlife Service Special Award - Chatanika River Basin Report
Fellow, Arctic Institute of North America

Employment

1982 to present--Self employed Alaskan wildlife consultant.
1981-82--Visiting Lecturer, Institute of Arctic Biology, University of Tromso, Norway.
1977-81--Regional Supervisor, Southeast Alaska Game Division, Alaska Department of Fish and Game.
1972-77--Polar Bear Project Leader, U.S. Fish and Wildlife Service.
1969-72--Polar Bear Project Leader and Area Game Biologist, Alaska Department of Fish and Game.
1964-69--Brown Bear and Polar Bear Project Leader, Alaska Department of Fish and Game.
1963-64--Caribou Project Leader, Alaska Department of Fish and Game.
1957-63--Office of River Basin Studies, U.S. Fish and Wildlife Service, Alaska.
1956-57--Big Game Biologist, Montana Fish and Game Department.
1954-56--Medical technician, U.S. Army.

Other Experience

Member, Alaska Board of Game, 1989 to present.
Member, National Marine Fisheries Service Sea Lion Recovery Team, 1990 to present.
Member, Marine Mammal Commission Scientific Advisory Committee, 1973-75 and 1985 to present.
Member, International Polar Bear Specialist Group, 1968-85.
U.S. delegate to international polar bear meetings, 1965, 1968, 1970, 1972, 1973, 1974, 1976, 1979, 1981, 1983.
President, Alaska Chapter, The Wildlife Society, 1972-74 and 1977-79.
Fellow, Arctic Institute of North America.
Participant, Canadian Hudson Bay polar bear research program, 1969.
Field consultant to Norwegian Polar Institute for polar bear research in Spitsbergen, 1967.

QUESTIONS OF THE COMMITTEE AND THE ANSWERS THERETO

1. You have been involved for more than twenty-five years in programs to conserve and manage marine mammals, including the development of the Marine Mammal Protection Act (MMPA). Your experience has provided ample opportunity to observe the effectiveness of the MMPA, as well as the Marine Mammal Commission.

a. In your view, how well has the MMPA fulfilled the purposes for which it was enacted in 1972? Please explain

b. what changes in the MMPA would you suggest to improve marine mammal conservation or management?

c. How would you evaluate the role of the Commission in implementing the MMPA?

d. what are the principal issues which face the Commission at the present time?

Sub-Question a: In your view, how well has the MMPA fulfilled the purposes for which it was enacted in 1972? Please explain.

ANSWER: In my opinion, the Act has been remarkably successful. Among other things, it mandates that species in danger of extinction or depletion due to human activities should not be permitted to diminish below a point where they cease to be a significant functioning element of the ecosystem. The Act's moratorium on taking marine mammals has been, without question, a major factor in reducing human-related causes of population declines and helping to create an environment favoring recovery of reduced populations. while certain species, such as northern elephant seals, California sea lions, and gray whales, have responded with rapid recoveries, others, like California sea otters and humpback whales, have responded more slowly; others, like right whales, have barely begun to respond; and others, like North Pacific fur seals and Steller sea lions, have declined. In the absence of the moratorium, some species might well have been pushed to extinction; others that have since recovered might not -have recovered; and some that have declined probably would have declined more rapidly.

The Act also formally recognized the aesthetic and recreational, as well as economic, importance of marine mammal resources, and it established the goal of maintaining marine mammals at optimum sustainable population levels whenever consistent with the primary objective of maintaining the health and stability of the marine ecosystem. while some species, including certain species in Alaska, have declined to levels below their optimal sustainable population levels over the past 20 years, the Act has forced recognition of the decline and has afforded the legal basis and mandate for identifying and resolving the causes of those declines.

Regarding the Congressional finding of inadequate knowledge of marine mammal ecology and population dynamics, the Act has prompted government- and non-government-sponsored research that has greatly increased our understanding of the status of marine mammal populations and their interactions with other living and non-living components of the marine ecosystem. Without the Act, marine mammal research would not have been sufficient to provide the biological insight and support of management actions that it has. while critical information needs remain (and probably always will exist in some respects), substantial progress in improving our understanding of marine mammals has been made.

The Act directs that actions be taken to pursue marine mammal research and conservation through international negotiations. In recent years, considerable efforts in this regard have been made on several issues vital to marine mammal populations, including U.S. attempts to negotiate or pursue agreed international measures related to high seas driftnet fisheries, commercial whaling, protection of the Southern Ocean ecosystem, and reducing marine debris.

Administratively, the Act established the Marine Mammal Commission to provide an independent source of advice and guidance on marine mammal conservation issues within the Executive Branch. The Commission has clearly fulfilled this function as is indicated by its past annual reports.

Sub-Question b: What changes in the MMPA would you suggest to improve marine mammal conservation or management?

ANSWER: I would like to see: new measures that would further facilitate and require prompt development and implementation of conservation plans for depleted species and other species which would benefit from such plans; the granting to the Commission of discretionary authority to selectively review research and public display permits inasmuch as the mandatory permit review of all -permit applications, be they significant or not, absorbs time that could be better spent on broader problems; a clear mandate, direction, and funding for the Departments of the Interior and Commerce to evaluate and acquire coastal areas important for the conservation of marine mammals; and substantially greater emphasis generally placed on habitat protection—the key to long-term health and, in some cases, the survival of marine mammal species.

sub-Question c: How would you evaluate the role of the Commission in implementing the MMPA?

ANSWER: I think you need only to read the annual reports of the Marine Mammal Commission to assess its effectiveness in implementing the Act. Congress had the right idea when it created the Marine Mammal Commission. Without it, I feel confident that Federal agencies would have simply disregarded the provisions of the Act. Furthermore, I think that the help of the Commission on really complex issues—for example, the development of the recommended guidelines for incidental take of marine mammals after October 1993 and the negotiation of new agreements under the Antarctic Treaty—has given the agencies extremely good guidance on a range of difficult issues. Without the Commission, I do not think the United states would have developed a successful marine debris program; I doubt if we would have taken a stand against high seas driftnet fisheries; I do not think that good recovery plans for manatees and monk seals would have been developed or implemented; and I know that the United states would not have negotiated for an ecosystems-oriented Convention for the Conservation of Antarctic Marine Living Resources.

One of the reasons the Act has been implemented successfully is because of the Commission's permanent staff. The staff is small but extremely knowledgeable, dedicated, and productive, with little turnover of key people. I have the highest regard for them.

Sub-Question d: what are the principal issues which face the Commission at the present time?

ANSWER: I see the most critical problems to be: ensuring that commercial fisheries do not adversely affect marine mammal populations; bringing an end to the wasteful, indiscriminate high-seas driftnet fisheries in which so many marine organisms, including mammals, are killed and injured; protecting and restoring the endangered marine mammal species and populations occurring in coastal waters of the United states, particularly right whales, West Indian manatees, Hawaiian monk seals, California sea otters, and humpback whales; identifying and resolving the causes of declines of North Pacific fur seals, steller sea lions, and harbor seals; monitoring and responding to what appears to be an increase in the occurrences of marine mammal dies-off in U.S. waters and elsewhere; strengthening efforts bearing on marine mammal habitat protection; strengthening international efforts to conserve and protect marine mammals, particularly as they relate to commercial whaling, incidental take in high seas driftnets, protection of the southern Ocean, and controlling marine debris; and assisting and encouraging other countries to effectively protect highly endangered marine mammals, such as the various river dolphin species, the Gulf of California harbor porpoise, Hector's dolphins, Mediterranean monk seals, right whales, manatees, and dugongs.

2. Fishery-marine mammal conflicts have become the subject of increasing concern in both Atlantic and Pacific fisheries. In 1988, Congress enacted MMPA amendments that establish a five-year interim program, including exemptions for commercial fishermen, deployment of observers, and development of guidelines to set allowable levels for the incidental taking of marine mammals by commercial fishermen. This program is scheduled for completion at the end of 1993.

Given your expertise in marine ecology and wildlife biology, how would you assess the progress of the program to date?

What recommendations would you make for improving it?

ANSWER: As part of the five-year interim exemption program, Congress directed the National Marine Fisheries service to: 1) develop and annually up-date a list of all U.S. fisheries according to the frequency with which they take marine mammals; 2) develop a system for registering and requiring annual reports from owners of vessels engaged in fisheries that take marine mammals more than rarely; 3) establish a program to enhance the quality and verify the reliability of information provided in fishermen's reports, including the placement of observers to monitor 20—35 percent of the fishing effort in Category I fisheries, those fisheries that have a frequent incidental take of marine mammals; 4) design and implement an information management system capable of processing and analyzing information in reports from fishermen and from other sources; and 5) taking into account recommended guidelines, which were developed by the Marine Mammal Commission in consultation with its Committee of scientific Advisors, transmit to Congress by 1 January 1992 recommendations for legislation to govern the incidental taking of marine mammals after October 1, 1993.

To date, the National Marine Fisheries Service has developed and annually up-dated a list of all U.S. fisheries according to the frequency with which they take marine mammals. The service also has developed and implemented a system for vessel registration and required annual reporting from owners of vessels engaged in Category I and Category II fisheries. Likewise, the Service has developed an information management system to assist in processing and analyzing information obtained from fishermen and other sources, and has begun to implement an observer program to enhance the quality and verify the reliability of information reported by fishermen. At present, the

National Marine Fisheries service is drafting its legislative proposal, which I understand will be made public and be provided to the Commission and others for review and comment sometime within the next six weeks. In addition, the Service has received a supplemental appropriation and begun to implement a program to estimate the minimum numbers of those marine mammal species taken most frequently incidental to fisheries in U.S. waters. There have been delays in developing the mandated observer program, primarily because of funding limitations. As I understand it, for some fisheries, the program is far below the 20—35 percent observer level mandated by Congress. Similarly, while the vessel registration and reporting systems have been established and appear to be operating effectively, there have been delays in summarizing and evaluating the data and information being provided by both fishermen and observers. To date, I am not aware of any information having been published on the numbers of marine mammals reported or observed to have been taken incidental to various fisheries.

As noted earlier, the service is drafting proposed legislation to regulate the incidental taking of marine mammals in fisheries after the interim exemption expires on 1 October 1993. The Commission provided recommended guidelines to the service last July, and I assume that the Commission's views will be reflected in the service's recommendations.

I suspect that the lack of information concerning the size, productivity, and status of affected marine mammals species and populations will be the major impediment to implementing an effective regulatory system in 1993. The most useful thing that could be done in this regard is to ensure that the National Marine Fisheries service has the necessary resources to devote to population survey work in the next 12-18 months. I therefore suggest that, if it has not already been done, the National Marine Fisheries service be asked to provide an assessment of the population data it will need to implement its proposed regulatory regime, to say whether it has the resources to gather the data, and to tell you whether it will be possible to obtain the needed data before October 1993.

3. In May, at the annual meeting of the International whaling Commission (IWC), some countries, such as Iceland, may press to lift the moratorium on commercial whaling. There is also speculation that these countries may leave the IWC and unilaterally resume commercial whaling operations.

As a scientist, what are your views on the resumption of commercial whaling?

ANSWER: From a scientific perspective, stocks of whales that are within their optimum sustainable population levels should be able to sustain the removal of some animals, be it through commercial whaling or any other means, without adversely affecting the status of that population or the ecosystem. Although stocks of many whale species (e.g., blue whales, right whales, and humpback whales) that were targets of commercial whaling in the past have clearly been reduced and remain far below their OSP levels, some whale stocks of interest to commercial whalers (e. g., southern Hemisphere minke whales) appear to be within OSP levels. From a purely biological perspective, the take of a small number of whales from those stocks by commercial whaling should not pose a threat to the health of those stocks or the ecosystem.

However, the procedures for calculating what number would be small enough to assure that the effects would not be significant is a complex question that is still being looked into by the IWC Scientific Committee, by scientists in the United states, and by scientists elsewhere. Although I have not had an opportunity to review the results of the work to date, I understand that the IWC Scientific Committee reports that it is making progress to develop such procedures. Assuming that acceptable procedures are developed to calculate a safe removal level, there also must be assurance that a management program is in place to effectively monitor and enforce actual whaling activity. The IWC's past program has been very weak in these areas. Even without taking into account other fundamental policy considerations bearing on the resumption of whaling, I would certainly want to examine matters very carefully before proceeding with any decision regarding a return to commercial whaling.

4. As you know, Steller sea lions were designated as threatened under the Endangered species Act in 1990 due to a severe population decline.

As a member of the steller sea Lion Recovery Team, what do you think has caused the rapid decline of this species over the last ten to twenty years?

Are all necessary measures being taken to respond to this decline? If not, what else should be done?

What do you see as the role of the Marine Mammal Commission in taking steps to reverse the trend?

ANSWER: Several things could have contributed to the Stellar sea lion population decline including: incidental take in one or more fisheries; direct killing, including commercial harvest, control programs, subsistence harvest, and shooting by fishermen; decreases in principal prey species

due to natural environmental change, overfishing, or both; and human disturbance at important habitats such as rookeries. There is evidence of decreased growth rates and decreased pup survival, suggesting that the problem, at least in part, is food-related. Thus, while not certain, it seems most likely that the problem is decreased food availability due to over-fishing, natural environmental changes, or both. The fact that fisheries, particularly the pollock fishery, have increased dramatically over the same period that the decline has occurred, suggests that the problem may well be related to over-fishing.

The Recovery Team has prepared a draft recovery plan which has been released for public comment. It is a good document that should soon be finalized and adopted by the National Marine Fisheries service. In the short term, the most important task is to determine where Steller sea lions normally feed at different times of the year and then to assess and monitor the availabilit_ of key prey species in those areas. The National Marine Fisheries Service has initiated a satellite-linked radio tagging and tracking program to determine the at-sea movements and habitat-use patterns of various age/sex classes of Steller sea lions in different areas. I am not certain that enough animals are being tagged and tracked over a large enough area to allow identification of key feeding areas of all age/sex classes throughout the species' range where declines have been observed. I also do not know what the National Marine Fisheries service is doing or planning to do to assess and monitor the availability of key prey species in important Steller sea lion feeding areas identified through the marking and tagging program. I suspect that it would be desirable to increase the scale and geographic scope of the radio tagging/tracking and monitoring programs.

The Marine Mammal Commission played a major role in forcing the establishment of the Steller Sea Lion Recovery Team and the development of the Recovery Plan. In the future, I think that the Commission's primary role will be to ensure effective implementation and periodic review and up-date of the Recovery Plan.

Senator KERRY. Gentlemen, I have no particular order, if either of you want to lead off. If not then why do we not start with Mr. Lentfer? And do not feel constrained to read your entire statement. We will make it a part of the record.

So please proceed.

STATEMENT OF JACK W. LENTFER, NOMINEE TO BE A MEMBER OF THE MARINE MAMMAL COMMISSION (MMC)

Mr. LENTFER. Thank you, Mr. Chairman. Good afternoon, Mr. Chairman, Senator Stevens.

My name is Jack Lentfer. I am a resident of Homer, AL, a small coastal fishing community in the south central part of the State. I am extremely honored to be nominated to the Marine Mammal Commission and if confirmed, I believe I can make a contribution to conservation and management of our Nation's marine resources.

Marine resource managers must deal with many issues. This is especially true in Alaska, with its extensive coastline, its abundant and diverse marine fauna, its coastal and offshore energy reserves where development is increasing, its highly productive waters where marine mammals and humans share some of the same food bases, and its subsistence use of marine mammals by Alaskan natives.

If confirmed as a Commissioner, I believe my background will be useful across a broad range of marine mammal issues, particularly those related to Alaska. I have been involved with Alaska's marine environment since 1957 when I started work as a wildlife biologist. I specialized in polar bear research and management and served as a polar bear project leader for both the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service. I have been involved with both national and international polar bear programs and helped draft and negotiate the International Agreement on Conservation of Polar Bears.

Subsistence uses of marine mammals by Alaskan natives is a complex issue. I have lived and worked in coastal communities at various locations in the State

and have an understanding and appreciation of native subsistence concerns and needs.

I have also had a long involvement with the Marine Mammal Protection Act. I testified for the State of Alaska when the act was being considered by Congress in 1971, and served on the Marine Mammal Commission's first Committee of Scientific Advisors on Marine Mammals. I recently completed my second term on the committee. During this term, I oversaw the writing and edited the Commission's major report on 10 marine mammal species of Alaska.

I now work as a private wildlife consultant. Recent activities include work on the Exxon *Valdez* oilspill, formulation of recommendations to protect polar bears as energy development proceeds in the Arctic, and membership on the recovery team for the Steller sea lion, a species listed as threatened.

I have addressed all potential conflicts of interest that might arise from past work and my appointment to the Commission by entering into a recusal agreement on certain matters. While that agreement should prevent any conflict of interest, it is also of limited scope and should not diminish my effectiveness on the Commission.

Thank you for the opportunity to appear before you. And I will be pleased to answer any questions.

Senator KERRY. Thank you very much, Mr. Lentfer.

Dr. Reynolds.

[The biographical sketch and prehearing questions and answers follow:]

ERNEST F. HOLLINGS, SOUTH CAROLINA, CHAIRMAN
DANIEL K. INOUYE, HAWAII
WENDELL H. FORD, KENTUCKY
J. JAMES EXON, NEBRASKA
ALBERT GORE, JR., TENNESSEE
JOHN D. ROCKEFELLER IV, WEST VIRGINIA
LLOYD BENTSEN, TEXAS
JOHN F. KERRY, MASSACHUSETTS
JOHN B. BREAUX, LOUISIANA
RICHARD H. BRYAN, NEVADA
CHARLES S. ROBB, VIRGINIA
JOHN C. DANFORTH, MISSOURI
BOB PACKWOOD, OREGON
LARRY PRESSLER, SOUTH DAKOTA
TED STEVENS, ALASKA
ROBERT W. KASTEN, JR., WISCONSIN
JOHN MCCAIN, ARIZONA
CONRAD BURNS, MONTANA
SLADE GORTON, WASHINGTON
TRENT LOTT, MISSISSIPPI
KEVIN G. CURTIN, CHIEF COUNSEL AND STAFF DIRECTOR
WALTER B. MCCORMICK, JR., MINORITY CHIEF COUNSEL AND STAFF DIRECTOR

United States Senate
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
WASHINGTON, DC 20510–6125

STATEMENT FOR COMPLETION BY PRESIDENTIAL NOMINEES

(If more space is needed, please use attached REMARKS sheet)

A. BIOGRAPHICAL DATA

1. Name: Reynolds, III (Last) John (First) Elliott (Other)

Address: 8791 15th Lane North (Current residence) St. Petersburg, FL 33702

Eckerd College (Business) 4200 54th Avenue South St. Petersburg, FL 33711

2. Position to which nominated: Commissioner, Marine Mammal Commission

Date of nomination: 26 October 1990

3. Date of birth: 11 (month) 08 (day) 1952 (year)

Place of birth: Baltimore, MD

4. Marital status: Married

Full name of Spouse: Kristen Mary Reynolds

5. Names and ages of children: John E. Reynolds, IV — 10

6. Education:

Institution	Dates attended	Degrees received	Dates of degrees
University of Miami	1974–1980	MS	1977
		Ph.D.	1980
Western Maryland College	1970–1974	BA	1974
Towson State University	Summer 1973	-	-

7. Employment record: List all positions held since college, including the title or description of job, name of employer, location of work, and dates of inclusive employment.

From	To	Name of employer	Address	Type of work
9/80-Present		Eckerd College	4200 54th Av. S. St. Petersburg, FL 33733	Professor
2/89-Present		Marine Mam. Comm.	1825 Connecticut Av. NW. Washington, DC 20009	Scientific Advisor
1982-Present		Florida Power & Light Company	P.O. Box 14000 Juno Beach, FL 33408	Scientist
3/78-6/80		Univ. Miami	4600 Rickenbacker Causeway, Miami, FL 33149	Research Asst.
6/75-8/78		Univ. Miami	4600 Rickenbacker Causeway, Miami, FL 33149	Editorial Asst.
-8/78		Univ. Miami	Coral Gables, FL	Teaching Asst.
1977-1978		Miami Museum of Science	Bayshore Drive, Miami, FL	Teacher
8/76-8/77		U.S. Fish & Wildlife Serv.	412 NE 16th Av. Gainesville, FL 32609	Biological Tech.
Summer of '76		Univ. Miami	4600 Rickenbacker Causeway, Miami, FL 33149	Biological Tech.
6/75-12/77		Univ. Miami	4600 Rickenbacker Causeway, Miami, FL 33149	Teaching/Res. Asst.
11/74-5/75		Univ. Miami	4600 Rickenbacker Causeway, Miami, FL 33149	Computer Opr.

8. Government experience: List any experience in or direct association with Federal, State, or local governments including any advisory, consultative, honorary or other part-time service or positions.

2/89-Present Member of Committee of Scientific Advisors, Marine Mammal Commission, Washington, DC.
2/90-Present Chairman, Committee of Scientific Advisors, Marine Mammal Commission, Washington, DC.
1982-1989 Awarded research contracts from Marine Mammal Commission.
8/76-8/77 Biological technician for the U.S. Fish & Wildlife Service (Gainesville, FL) to conduct aerial surveys.

9. Political affiliations activities: List all memberships and offices held in or financial contributions and services rendered to all political parties or election committees during the last 10 years.

None

10. Memberships: List all memberships and offices held in professional, fraternal, scholarly, civic, charitable, and other organizations.

1974-present Member American Society of Mammalogists
1985-present Member Society for Marine Mammalogy
1981-1990 Member Florida Academy of Sciences
Chair Biological Sciences Section 1986-7
1974-1982 Member International Oceanographic Foundation
1984-1990 Member Omicron Delta Kappa
1985 Member Society of Sigma Xi

11. Honors and awards: List all scholarships, fellowships, honorary degrees, honorary society memberships, and any other special recognitions for outstanding service or achievement.

1970: Sons of the American Revolution Award
1970: American Legion Good Citizenship Award
1972: Selected as member of Tri-Beta Biological Honor Society
1974: Selected as member of Western Maryland College Honor Society: Argonauts
1977: Florida Wildlife Federation Award for Research Excellence
1977-1978: National Wildlife Federation Fellowship
1982: Selected as an Outstanding Young Man of America, endorsed by U.S. Jaycees
1984: Selected as Member of Omicron Delta Kappa (ODK)
1986: Awarded Robert A. Staub Distinguished Teacher Award, Eckerd College
1990: Selected for inclusion in Who's Who in the South and Southwest (22nd edition).

QUESTIONS OF THE COMMITTEE AND THE ANSWERS THERETO

1. You have served on the Marine Mammal Commission's Committee of Scientific Advisors since 1989.

Based on your experience, what priorities should the Commission set for its activities in the near future and for the long term?

What would you identify as the most serious challenges to marine mammal conservation efforts in the foreseeable future?

ANSWER: In response to existing and anticipated issues, the authors of the Marine Mammal Protection Act (MMPA) wrote that the purpose of the Act was to protect and conserve marine mammals to ensure that they do not diminish beyond the point where they cease to be significant functioning elements of the ecosystems of which they are a part. To achieve such an ambitious goal, the Act stated that marine mammal management efforts should strive primarily to maintain the health and stability of the marine ecosystem and, where consistent with this objective, the goal is to obtain optimum sustainable populations (OSP) of each marine mammal species, keeping in mind the carrying capacity of the environment.

These general statements of goals and objectives, framed in the context of issues two decades ago, apply equally well today and into the future, in terms of the Commission's foci. For example, the goal of obtaining OSP for many species is unfulfilled; indeed, some species may be more in danger of extinction today than ever before, and they deserve immediate and significant attention. I consider species such as the Florida manatee, the Hawaiian monk seal, and the right whale to fall into this category.

Similarly, the statements regarding functioning elements of ecosystems and carrying capacity of the environment lead one to other vitally important issues including, but not limited to, the following: habitat changes due to natural causes (e. g., long term climatic changes); outright habitat destruction by humans; anthropogenic habitat changes such as chemical pollution, global warming, ghost nets and other debris, and over-fishing, especially using driftnets; and human activities that affect marine mammals directly, including incidental take. Any one of these factors can change the nature of the ecosystem and its carrying capacity; a terrible concern involves potential synergistic effects.

Ecosystem questions relating to marine mammals are serious and numerous. For example, in the Bering Sea, certain marine mammals and seabird populations have plummeted for reasons that are not well understood; fisheries compete with and, in some cases, incidentally take marine mammals; die-offs occur with increasing frequency (but often undetermined etiology), but adequate contingency plans are not in place; high seas driftnetting indiscriminately kills undetermined numbers of marine mammals and other wildlife. Promoting better understanding of these and other habitat-related issues is, and should continue to be, a high priority for the Commission. The Commission should encourage and, if possible, facilitate coming to grips with anthropogenic and natural causes of ecosystem change in order to satisfy the requirement of the Act that marine mammals be protected and conserved, to continue as significant functioning elements of marine ecosystems.

There are a number of serious challenges facing marine mammal conservation efforts. The first, and perhaps the most obvious, is lack of data on which to base sound management decisions. Given a lack of data, the Commission must attempt to convince others that it is best to err on the conservative side to ensure that marine mammals and other living resources survive in a healthy state. Another challenge involves understanding the dynamics of marine ecosystems and of human impacts thereon sufficiently to predict, and hopefully prevent, adverse impacts. Multidisciplinary, long-term efforts are a key to such understanding. Possibly the most difficult challenge was articulated by Dr. Mostafa K. Tolba, Executive Director of the United Nations Environment Programme (UNEP) who, in speaking about global warming and other global problems, remarked "nothing less than a complete change in attitudes and lifestyles will succeed" in forestalling catastrophe. Both within and outside the United States, people consume natural resources unwisely, in both the short and long term. We must continue to work to educate people regarding wise practices of resource management; with luck, we can help to effect Dr. Tolba's suggested "change in attitude" to the benefit of marine mammals and their habitat.

2. In addition to the protection provided by the Marine Mammal Protection Act (MMPA), several marine mammal species, such as manatees and California sea otters, are listed under the Endangered Species Act (ESA).

In your work with endangered manatees, have you found the provisions of the two statutes to be complementary or contradictory in their approaches to protecting marine mammals? Please explain. What changes in the MMPA or the ESA would you suggest to improve marine mammal conservation or management?

ANSWER: In my experience, I have found the Marine Mammal Protection Act and the Endangered Species Act to be largely complimentary. where significant inconsistencies between the two Acts have been identified, Congress has acted to reconcile those differences. For example, in 1986, the Marine Mammal Protection Act was amended to allow small numbers of depleted marine mammals to be taken incidental to certain activities when such taking would have a negligible impact on the affected population. Prior to that amendment, the incidental take of all endangered and threatened species, except marine mammals, could be authorized under section 7(b) (4) if the take would not jeopardize the continued existence of the species. In 1988, the Marine Mammal Protection Act was amended to provide the Secretaries of Commerce and the Interior authority to issue permits for activities designed to enhance the survival and recovery of marine mammal populations. This authority is similar to that provided under the Endangered Species Act since its enactment in 1973. In addition, the 1988 Marine Mammal Protection Act amendments directed that conservation plans, akin to the recovery plans required by the Endangered Species Act, be prepared for depleted marine mammal stocks. Except as noted below, where conflicts between the two Acts persist, they are relatively minor and are addressed adequately by section 17 of the Endangered Species Act, which mandates that the more restrictive provision will take precedence.

One basic point on which the two Acts differ is in their definitions of "take." Under the Marine Mammal Protection Act, "take" is defined to mean "to harass, hunt, capture, or kill, or to attempt to harass, hunt, capture, or kill any marine mammal." "Take," is defined in the Endangered Species Act to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct." The crucial element missing from the Marine Mammal Protection Act definition, but contained in the Endangered Species Act definition, is "harm." By adding the term "harm" to the Marine Mammal Protection Act definition of take, enforcement of the Act would be enhanced. For example, in the case of taking by habitat degradation, as was the situation with the endangered Hawaiian bird, the palila, it may be easier to demonstrate that a population is being harmed than to show that individuals are being killed or harassed.

Also, as the Commission noted in its Recommended Guidelines to Govern the Incidental Taking of Marine Mammals in the Course of Commercial Fishing Operations after October 1993, conforming amendments are needed with respect to the incidental take provisions of the two Acts. As interpreted by the National Marine Fisheries Service, the incidental take of marine mammals may be authorized under section 7(b) (4) of the Endangered Species Act only if the take has also been authorized pursuant to Marine Mammal Protection Act section 101 (a) (5). However, section 101 (a) (5) only applies to taking incidental to activities other than commercial fishing. Therefore, if the Marine Mammal Protection Act is amended to authorize the take of depleted marine mammals incidental to commercial fishing, parallel changes to the Endangered Species Act will be required.

In the alternative, the incidental take of endangered or threatened marine mammals could be authorized under section 10(a) (1) (B) of the Endangered Species Act. The section 10 procedure for authorizing incidental taking is more cumbersome than that under section 7 and requires the applicant to prepare a detailed conservation plan. Moreover, as the Act presently reads, section 10 incidental take permits are available only for takings that do not occur beyond the territorial sea. Depending upon the approach ultimately adopted to authorize the incidental taking of marine mammals when the interim exemption for commercial fisheries expires in October 1993, Congress may wish to consider expanding the applicability of section 10(a) (1) (B) to all waters within the U.S. Exclusive Economic Zone.

3. The encirclement of dolphins by foreign tuna fishermen continues to result in the deaths of thousands of dolphins each year. In recent months, the U.S. tuna industry and several environmental groups have called for substantial investment of Federal funds to develop alternative technologies which would not require "setting on dolphins."

In your view, is it likely that such an investment would result in new fishing technologies that could replace setting on dolphins? why or why not?

What other suggestions can you offer for reducing dolphin mortalities in the tuna fisheries?

ANSWER: As I understand it, work done to date suggests that certain species of tuna, including small yellowfin tuna, can be attracted to artificial aggregating devices and/or caught when they are not associated with dolphins. However, it is also my understanding that large yellowfin tuna, typical of the size caught by setting-on-dolphins, are difficult to catch when they are not associated with dolphins and infrequently are attracted to, or held by, artificial aggregating devices. Gillnets have been, and could be, used to catch large yellowfin, but this likely would pose a greater threat to affected dolphin stocks and a wide variety of other marine organisms than does purse seining.

Conceptually, dolphins might be separated from tuna prior to deploying purse seines and/or a form of aggregating device might be developed that will attract and hold large yellowfin tuna. To date, I do not think there has been sufficient research done to evaluate either possibility. The National Academy of Sciences is finishing a study of alternative fishing methods. Until that study has been carefully reviewed and evaluated, we would be ill-advised to suggest investing, or not investing, in research on alternative fishing methods.

One thing that I do believe is that banning the import of tuna caught by setting-on-dolphin is more likely to cause foreign fishing fleets to seek alternative markets for their tuna, rather than seeking development of alternative methods for catching tuna. To provide an incentive for the development of a cost effective alternative to setting-on-porpoise, I think that it would be desirable for the Federal government and the tuna industry to jointly establish a fund to support research and encourage individual fishermen to develop alternative fishing techniques.

4. The National Marine Fisheries Service has been working for several years now to develop new policies regarding the public display of marine mammals. In addition, the agency recently published a rulemaking banning the feeding of dolphins during dolphin-watching cruises.

In your view, what should be the primary considerations of the agency in developing public display policies?

What can or should be done to encourage the development of public display programs which permit marine mammals to be observed in their natural environment?

What is your position regarding dolphin-feeding, and on what objective scientific evidence do you base that position?

ANSWER: The primary concerns of the National Marine Fisheries Service and the Fish and Wildlife Service in developing policies for implementing the public display provisions of the Marine Mammal Protection Act should be to ensure that takings do not have adverse effects on wild populations and that those animals removed from the wild are properly maintained and cared for. Under the Act, depleted marine mammals may not be taken for purposes of public display. Thus, as long as the Services adopt sufficiently conservative thresholds and procedures for determining whether populations are at optimum sustainable levels and will remain so after any removals, wild populations should not be adversely affected.

Section 104(c) (1) of the Marine Mammal Protection Act requires the Services, for each public display, scientific research, or enhancement permit, to specify the methods of capture, supervision, care, and transportation which must be observed pursuant to and after the authorized taking or importation. The Services, in cooperation with the Animal and Plant Health Inspection Service, are reviewing applicable care and maintenance standards for captive marine mammals to determine if current requirements are sufficient.

Several programs, most notably those involving whale watching, enable the public to observe marine mammals in their natural habitats. As long as operators of such programs do not take (that is to say, harass) marine mammals, there are no limitations imposed by the Marine Mammal Protection Act. The National Marine Fisheries Service is in the process of developing regulations to delineate more clearly what activities would or would not constitute a take.

In addition, the Commission, in a 24 August 1989 letter to the National Marine Fisheries Service commenting on the Service's permit program review, recommended adoption of a definition of public display that would include observation of and/or interaction with marine mammals in natural, as well as captive, settings. If this recommendation is followed, it may be that permits could be issued to authorize approaches to wild marine mammals closer than would otherwise be allowed. One potential use of this authorization would be to authorize close approaches for purposes of filming marine mammal documentaries.

During my career, I have studied bottlenose dolphins. Based on my experience with this species and my knowledge of what has happened with other wild animals, I do not support programs that feed wild dolphins to facilitate observation. By analogy, it is reasonable to conclude that such programs, even those conducted with the utmost care and the best of intentions, could adversely affect the dolphins. Among other things, feeding dolphins (or other marine mammals) in the wild may: 1) condition them to approach vessels, piers, etc. where there is an increased likelihood that they will become entangled in fishing gear, be struck by vessels, or be shot, poisoned, or fed foreign objects; 2) cause them to become dependent on such food sources and become less able to find and catch natural prey when feeding is discontinued; 3) alter migratory patterns, thereby subjecting them to food shortages or inhospitable conditions that otherwise would be avoided; 4) condition them to expect food from people, causing aggressive behavior when food is not offered; and 5) expose them to and make them more susceptible to disease. Also, I note that in the Southeastern United States bottlenose

dolphins in the past three years have suffered from at least two serious die-offs as well as higher than usual mortalities in locations outside the die-offs proper. We do not understand what effect the unusual mortalities have had on dolphin populations, but we should be certain not to introduce potential hazards to the animals that could impede or prevent recovery. Even where we lack specific scientific data, I feel it is best to err on the conservatism.

5. Several species of small cetaceans around the world currently show precipitous declines. For example, the Mexican harbor porpoise population now is comprised of only a few hundred animals.

Which species most need our help, and what should the United States be doing about it?

ANSWER: In an informative, but non-technical, article written in 1989 for Oceanus, Robert L. Brownell, Jr., Katherine Ralls, and William F. Perrin discussed "The Plight of the Forgotten whales", namely the smaller cetaceans. The authors listed well over a dozen small cetacean populations considered to be "at risk". The species whose status is most critical, however, include the following:

(l) most species of river dolphins (Family Platanistidae). The baiji of the Yangtze River is considered by the authors to be the most endangered cetacean (large or small). The Indus River dolphin and Chinese River dolphin are not in much better shape. The Ganges River dolphin, Amazon River dolphin (boto), tucuxi (also found in the Amazon basin), and franciscana (found off Brazil, Uruguay, and northern Argentina) have also declined. The most significant reasons for the precarious status of these species involves habitat destruction and incidental take in fisheries.

(2) the vaquita, or Gulf of California harbor porpoise, which is incidentally taken in a fishery for totoaba and in other fishing activities in the Sea of Cortez; and

(3) Hector's dolphin, which has been impacted severely by gillnetting operations off New Zealand, the only place where this species is found.

Drs. Brownell, Ralls, and Perrin suggested a three-part approach to conservation of small cetaceans internationally. The steps are to evaluate the status of all species, to revise endangered species lists (the only small cetaceans on the U.S. Endangered Species List are the vaquita, the baiji, and the Indus River dolphin, which were listed in 1985, 1989, and 1990, respectively), and to refocus conservation efforts. In terms of the latter, I expect that an approach involving well-focused education, habitat acquisition and protection, research, and regulation (and subsequent enforcement) of human activities would be effective.

The U.S. could and should do several things. First, the U. S. should treat its own endangered marine mammals (e. g., monk seals, manatees, and right whales) in a way that serves as a model for other countries. when an affluent, ecologically concerned country such as the U.S. continues to permit reductions in populations of marine mammals in our own waters, it is difficult to serve as a responsible role model.

Besides serving as a role model, the U.S. should work through appropriate international and intergovernmental bodies such as the International whaling Commission, the World Conservation Union, and the United Nations Environment Programme, to help educate and guide people in other countries in efforts to conserve and protect marine mammals. A key point is that often, what is happening with marine mammals in an environment is symptomatic of what is happening to all natural resources in an area. Finally, the U.S. should be willing to provide scientific advice regarding alternative fishing methods, ways to approach marine mammal life history studies, and a broad range of other issues affecting the welfare of species and populations of many small cetaceans.

STATEMENT OF JOHN ELLIOTT REYNOLDS III, Ph.D., NOMINEE TO BE A MEMBER OF THE MARINE MAMMAL COMMISSION (MMC)

Dr. REYNOLDS. Thank you, Mr. Chairman. Good day to you and to Senator Stevens. It is a great honor and a pleasure to appear before you as you consider my appropriateness to serve as a member of the Marine Mammal Commission.

I graduated cum laude, with departmental honors from Western Maryland College in 1974 with a degree in biology. I immediately began graduate studies at the University of Miami's Rosenstiel School of Marine and Atmospheric Science, the institution from which I received my master's degree in 1977 and my Ph.D. in 1980. Both degrees were in biological oceanography and involved research on the endangered West Indian manatee. My master's work focused on

behavior and ecology, with my Ph.D. work on anatomy and pathology. I also did research on bottlenose dolphin populations and on stranded cetaceans.

I continue to do research on manatees and small cetaceans. Much of it involves aspects of biology that have management implications. For example, I recently convened a workshop on the use of geographic information systems and the management of manatees and manatee habitat in Florida and Georgia. And my own studies involve geographic information systems.

In addition to my research, I teach at Eckerd College and chair the college's Natural Sciences Collegium. The courses I teach are in comparative and human anatomy, comparative physiology, behavioral ecology, and marine mammalogy. In teaching, I attempt, among other things, to create an environment where students not only learn relevant concepts, but where they consider ethics and values associated with certain issues or situations.

As a faculty member of a liberal arts college, I endorse values-oriented, interdisciplinary approaches to issues. I also believe that scientists should not simply do science. They also have an obligation to clearly inform the public of their work. Therefore, I provide many free presentations to civic groups, schools, and others interested in my research.

Since 1989, I have served as a member of the Committee of Scientific Advisors on Marine Mammals for the Marine Mammal Commission. And since early 1990, I have chaired that committee. My work for the committee has been a highlight of my professional life. I have learned a great deal while doing work that I have enjoyed. If confirmed, I look forward, with great pleasure, to continuing this work.

I believe that my educational background, my teaching, my research, and my current work on the Committee of Scientific Advisors all allow me to satisfy the statutory requirements of the Marine Mammal Protection Act that Commissioners be knowledgeable in the fields of marine ecology and resource management. I support the act's goals, particularly the idea that the primary objective of marine mammal management should be to maintain the health and stability of the marine ecosystem, and, where consistent with this primary objective, obtain optimum sustainable populations of marine mammals, keeping in mind the carrying capacity of the habitat.

If I am appointed to serve as a Commissioner, I would support the objectives of the Marine Mammal Protection Act and work to ensure that the Marine Mammal Commission continues to meet its mandates. I understand the time and energy one must commit to be an effective Commissioner and I am willing, even eager, to make the commitment.

The Commission has had a strong track record since its inception 20 years ago. As new problems with increasingly subtle and complex etiologies appear, the Commission must continue to play an important role in conserving and protecting marine mammals and the habitats on which they depend. If confirmed, I shall be honored to be involved.

Senator KERRY. Thank you very much.

Let me begin by asking both of you, if I may, what in your view are the biggest challenges that the Mammal Commission now faces? How would you distinguish its successes versus its failures at this point in time? I do not know who wants to lead off but I know you touched on this in your written answers to questions.

Mr. Lentfer.

Mr. LENTFER. I think there are a number of things that are serious concerns that the Commission faces. One of these is the high seas driftnet fishery. It takes many, many species, other than fish which are targeted, including significant

numbers of marine mammals. And this is occurring broadly. It started in the North Pacific but it now occurs in many oceans throughout the world.

Another concern is habitat protection as offshore coastal development occurs in oil- and gas-related activities. This is especially true in Alaska.

Another concern is the problem of marine mammal fishery interactions, particularly in the Bering Sea. Probably 10 percent of the Nation's fisheries resources come from the Bering Sea. At the same time, we have populations of Steller sea lions, as well as fur seals and harbor seals, that are declining in that area. Part of the decline may be due to an increase in fisheries, although there are a number of other factors that may be influencing and causing these declines also that need to be addressed and corrected.

Dr. REYNOLDS. I would agree with Mr. Lentfer. And going back to the original language of the act, where it discusses maintaining populations, if possible, at OSP, and keeping in mind the carrying capacity of habitats, there are certain species clearly not at OSP levels. Some of these are endangered and could become extinct in the near future without some sort of remedial action. These populations are of critical concern.

Furthermore, the habitats on which these species depend, in many cases, are impacted severely by a variety of human or natural causes. In the case of the manatee in Florida, for example, sea grass beds and mangrove habitats have decreased in some places by 80 percent. And so the situation that exists for the manatee is really symptomatic of the situation for the coastal ecosystem. And I think we need to address both habitats and particular species.

In terms of triumphs and failures, one way to look at that particular question might be to envision what might not have happened had the Marine Mammal Commission or the Marine Mammal Protection Act not been there. Through the years, the Commission has prompted certain actions to occur, has facilitated transfer of information, and has facilitated workshops to address particular issues. And without the Commission, certain things simply would not have happened either in a timely way or at all.

The CHAIRMAN. Are you familiar with the agreement that was reached yesterday between the State Department, Japan, and Canada on the driftnet issue?

Dr. REYNOLDS. I am not.

The CHAIRMAN. I gather that they reached agreement on scientific monitoring and enforcement programs for Japan's driftnet fihsery in the North Pacific, and I wondered if either of you were familiar with or had been following any of the details of that.

Mr. LENTFER. I am not familiar with the details, Mr. Chairman.

The CHAIRMAN. What do you think, without reference to the specifics of what they may or may not have agreed on, is the most critical component of enforcing driftnet protection laws? What in your sense is the key? Is it on-board monitoring or is it some other scientific kind of tracking? Or is it downright banning altogether?

Mr. LENTFER. Certainly monitoring is an important aspect. And if not 100-percent observer coverage, enough observers should be placed aboard so that we get a true indication of what was being taken by the driftnet fisheries. And, of course, the final or the absolute way to end some of these problems would be an agreement to stop driftnet fishing completely. It is extremely wasteful.

The CHAIRMAN. We have seen significant dieoffs of marine mammals along the Atlantic Coast, in the Gulf of Mexico and off the coasts of Spain, France, Italy, and North America recently. Dr. Reynolds, what kinds of marine mammals have been suffering this dieoff and do we know what is causing it?

Dr. REYNOLDS. As you indicated, there have been a variety of dieoffs in different parts of the world which have involved different species, and, indeed, different families of marine mammals. There have been dieoffs involving pinnipeds, that is the seals in the North Sea, in New England, and off Hawaii. The dieoffs that you alluded to off the Atlantic involve primarily bottlenose dolphins, while the dieoff in the Mediterranean involve striped dolphins. So, it is not confined to one species or even one family of marine mammals.

We have some understanding of the causes of the dieoffs in a couple of cases. For example, the dieoff of harbor seals in the North Sea apparently resulted from a virus called a morbilli virus which struck those animals and resulted in the deaths of about 17,000 individuals.

We know at this point that one contributing factor in the dieoff along the mid-Atlantic states of bottlenose dolphins was brevetoxin, a naturally occurring toxin associated with the red tide organism in the South Atlantic and Caribbean and gulf.

The most recent dieoff that you mentioned in this country, is the dieoff of bottlenose dolphins in the Northern Gulf of Mexico. This led to almost twice the number of dead dolphins in the gulf in 1990 as in previous years.

The causes of that dieoff are not well understood. It is possible that some of the animals, at least, died due to cold. That is, they were trapped in an icebound bay following the extreme cold weather of Christmas 1989.

But we really have a poor understanding of the cause of that particular dieoff. And, at this point, a poor understanding of the Mediterranean dieoff as well.

The CHAIRMAN. You have suggested in your written statement, and also in your answers to questions submitted to you, that improving the quality of the coastal habitat clearly is critical, particularly in view of the dieoff and the kinds of problems you just cited. We have a number of statutes on the books: The Coastal Zone Management Act; the Clean Water Act; the Marine Protection Research and Sanctuaries Act; the Marine Plastic Pollution Act; and so forth.

Notwithstanding these laws, either the enforcement is lacking or something else is missing. I wonder what is your sense—is better coordination needed? Is better enforcement needed? Is there some other ingredient missing? Have we not been comprehensive enough? What is the missing element that would provide an adequate level of protection, if there is one?

Dr. REYNOLDS. I would guess there might be a variety of missing elements that work together. One missing element, in at least some cases, is the data base necessary to accurately assess what is happening. In some cases, for example, with marine mammals, we do not understand either what pesticide and other toxicant levels are in their body tissues or what the effects of those toxicants are on the animals.

Similarly, we may lack data on contaminant levels from sediments and water column, itself. That simply serves as another example that the database may not be there.

Enforcement may be another problem.

The CHAIRMAN. Do you want to comment on that, Mr. Lentfer?

Mr. LENTFER. I do not have anything to add.

The CHAIRMAN. We held a hearing last year in the wake of new information regarding coral bleaching and global climate change. I wonder if you might give us your sense of what the current situation is with respect to coral bleaching? Whoever wants to respond?

Dr. REYNOLDS. I will go ahead and take that, if you like.

My understanding of coral bleaching is that it affects corals around the world, but that the cause of the bleaching is still not completely understood. There have

been a number of recent bleaching incidents. In 1983 there were incidents in the Pacific and Indian Oceans; in 1987 and 1990, incidents in the Caribbean and off Bermuda; and in 1988, a very specific incident off of Jamaica. It has been alleged that global warming might be the cause of these bleaching incidents. But the data base is simply not there to strongly support that conclusion.

Recently, however, the Caribbean Marine Research Center has put a number of continuous recording temperature recorders around the Caribbean at a fairly low cost. They now have about 3 years of continuous data on temperatures. And they found that the 1990 bleaching incident corresponded very well to about an 18-day pulse of warm water in the Caribbean.

And so it looks as though warm water may be a cause, by itself, or synergistically with other stresses. I just add that the bleaching itself involves expulsion of the symbiotic algae that live with the corals. It does not necessarily kill the corals themselves—at least in some species, they can come back in 3 or 4 months.

Senator GORE. If the Chairman would yield for a comment on that? Are you familiar with the NASA record at Huntsville, the 11-year atmospheric temperature record that was compiled by satellite?

Dr. REYNOLDS. I am aware that it exists, but I am not familiar with the record

Senator GORE. In the hearing we had on coral bleaching the scientists from NASA sat in the back of this room and looked at their temperature record which is compiled by latitude, so they can zero-in on specific locations. They took out a whole series of viewgraphs that they had not presented during their testimony formally to the committee.

But after listening to the coral bleaching panel, they got together with them in the back of the room and came back to the witness table and said that for the entire 11-year record there is a virtually exact correlation between the major bleaching episodes worldwide and temperature peaks in the areas where the bleaching took place. Because the two groups of scientists came from completely different disciplines, nothing has been published on it. But the correlation is so precise that it cannot be coincidental.

The only other thing I would add to your statement is that while it is true that bleaching does not necessarily kill the coral, the testimony that we received indicated to the committee that repeated bleaching episodes seem to exhaust the ability of the coral to recover. And that, indeed, in the last 2 years, for the first time, they have started to see major dieoffs of coral, after repeated incidents of that kind.

Dr. REYNOLDS. I was not aware of those data. Thank you.

The CHAIRMAN. We are going to make him an ex officio member of the Marine Mammal Commission.

Let me turn to my colleague. I said we were under some time constraints here. We do have another hearing and Senator Murkowski is waiting. So, we do want to try to move if we could.

Senator Stevens.

Senator STEVENS. Thank you, Mr. Chairman.

I want you to know that our Alaska Eskimo Whaling Commission and Eskimo people at Barrows speak very highly of Mr. Lentfer, as I have indicated to you.

Dr. Reynolds, I have looked over your statement. I find it interesting you were not asked the same questions. I do not know if you know that. But you two were not asked the same questions. And so since many of the questions that were asked of Mr. Lentfer are of interest to me, let me ask you.

Are you familiar with the Pacific Coast and the North Pacific problems at all?

Dr. REYNOLDS. To some extent; yes, sir.

Senator STEVENS. We are entering—as Mr. Lentfer has indicated—a present period of time where there is substantial overfishing, substantial collision between driftnets and factory trawlers in the future of the ecosystem. Have you formed an opinion about that? Are you involved in that at all?

Dr. REYNOLDS. Well, I am involved, certainly, in terms of the impacts or potential impacts to marine mammals. And I am certainly aware of what has happened to some of the marine mammal and seabird populations in the Bering Sea and southwestern Alaska.

Senator STEVENS. We have witnessed, as the Chairman has indicated, the same result in the North Pacific as is occurring worldwide with regard to ocean mammals. But we have, beyond that, some new forms of fishing gear which are not lawful in the United States and some of which are actually being operated by American citizens and are having impact on ocean mammals.

Have you had occasion to review any of the reports about the impact of factory trawlers on ocean mammals, for instance, and the large travel ships out in the North Pacific?

Dr. REYNOLDS. I am generally aware of the issues of incidental take. I am not familiar with the specifics of that particular issue.

Senator STEVENS. Well, there seems to be a growing issue of waste, that these trawlers that are trawling for a specific species to run through their line and their production line as factory trawlers. The factory portion of the trip might be processing one particular type of species, and everything else they catch is thrown overboard and not utilized—even notwithstanding the fact that by the time it gets back to the sea it is deceased.

This increased issue of waste is starting to bother some of us from the North Pacific. Have you addressed this issue and its impact on the food chain for the ocean mammals at all?

Dr. REYNOLDS. Well, certainly in terms of the high seas driftnet fisheries that occur, focused on salmon and squid, but which also take a lot of bycatch of various fish species. And, in fact—as you indicated—interrupt migratory patterns.

Senator STEVENS. As the Chairman indicated, I am told that yesterday the State Department and the Government of Japan entered a new driftnet agreement that I find very disturbing. It only goes to December 31 and it has, I think, 13 or 14 fewer observers. But yet the agreement runs to June 30 of the next year, which is when the U.N. resolution requires a worldwide moratorium.

I think the Chairman and I will work together with Ambassador Pickering to bring that about. And it is very disturbing to know that we are going to abandon the observer program on December 31, before we know for sure that the U.N. is going to continue the moratorium and make it a prohibition after June 30. Have you formed an opinion about the U.N.'s position concerning driftnets? Should we press for a permanent ban on driftnets or is there, in your opinion, an area of the high seas we should recognize the use of driftnets as being lawful?

Dr. REYNOLDS. I believe the U.N. resolution is correct in what it is trying to accomplish. The driftnets, as Mr. Lentfer indicated, are a tremendously wasteful and destructive method of fishing. I gather that each night during the fishing season, about 25,000 miles of net are laid and that they indiscriminately take target species and nontarget species—including marine mammals and other fishes, turtles, birds, and so on.

A problem associated with this type of fishery is that it also entails a lot of loss of net. You then have ghost nets out there continuing to fish, even though they are not producing anything for human consumption. I am also concerned about the spread of the high seas driftnets. It seems as though several years ago

they were confined to the North Pacific. And now they seem to be spreading to all the world's oceans. Given its wastefulness, its indiscriminate level of catch, and its impact on the ecosystems, the U.N. resolution is taking the right approach.

I would add too that I am bothered by the decrease in observers. A problem with the whole driftnet issue has been the lack of reliable data. If the observers are removed or reduced in number, it simply will reduce the amount and value of the data that we have upon which to base sound decisions.

Senator STEVENS. Jack, I know your answers to the questions that were submitted cover the area of driftnets in the Pacific a little bit more. Would you have anything to add or do you have an opinion on the driftnet issue internationally?

Mr. LENTFER. No, I think we have pretty well covered it. It is an issue of great concern. I support a ban on driftnets as a method of fishing for the reasons that have been stated.

Senator STEVENS. Let me ask—and in the interest of time, just one more question. I would be remiss if I did not.

We have an Alaska Eskimo Whaling Commission. We have worked out a system of self-enforcement and self-determination based upon scientific data as to the number of whales that the indigenous people of Alaska may take to meet their needs; that they are not commercial and they are not allowed to sell the products, as you know.

Do either of you have any reservations about the continuance of the practice of the Alaska Eskimo Whaling Commission to take the whales that are allowed under the IWC quota system? What I am really asking is, would you work to ban that practice or are you satisfied that you could live with that practice of allowing the Eskimos to take the whales that they need for their own subsistence?

Mr. LENTFER. Yes, I have been familiar with that program ever since it started. In fact, I was familiar with Eskimo whaling before the IWC put the quota system into place. And I fully support it.

An important point is that it has strong cultural significance to the Eskimos. Also, those in the North Slope and others in the Alaska have done a lot of research in recent years. They have a good handle on the population of the whales and the number of whales that the IWC allows to be taken is not in excess of what the population can provide.

For these reasons, I think it should remain in place.

Senator STEVENS. Thank you.

Dr. REYNOLDS. I also would support its continuation.

Senator STEVENS. Thank you very much, Doctor. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Senator Gore, do you have any questions?

Senator GORE. No questions.

The CHAIRMAN. One last question before we adjourn.

Mr. Lentfer, I understand you were one of the original negotiators of the International Polar Bear Agreement. Could you just share with us quickly, has the United States lived up to our obligations under that agreement? And if you do not think so, what do you think we should be doing?

Mr. LENTFER. The United States has lived up to all of our obligations other than one, I think. And that is putting into place a formal mechanism for protecting female bears with cubs.

The CHAIRMAN. Is that something you think we could do relatively easily?

Mr. LENTFER. Yes, I believe so.

The CHAIRMAN. Well, I hope we will.

Well, gentlemen, as I said, I think you both bring different perspectives and obviously different regional views that will be important to this Commission. And I know the committee is delighted to have two experienced and qualified individuals taking on this important task.

We all understand we have a lot to learn about these issues. But we also have a lot of current knowledge, and some enforcement concerns that need to be addressed. I think the members of the committee are particularly concerned about the driftnet issue. There is also the question of dolphin-tuna, how to deal with the purse seine killings and takings and the difficulties in encouraging some of our foreign neighbors to take action without obviously losing some leverage. It is a delicate balance. But we look forward to your contribution to both of those efforts. Senator Stevens and I have been particularly focused on the driftnet issue, and I share his concern about the latest agreements.

There has got to be an alternative method devised.

Senator STEVENS. Could I add to that? I want to encourage you to continue what some of your predecessors have done, and that is to come to us before it is necessary to blow a whistle. We would like to be kept informed and make sure that we have the proper support from the Senate for the activities of the Marine Mammal Commission. I view it to be one of the important commissions dealing with the oceans, and view the status of the marine mammals as being a good indicator of the status of the population of the whole ecosystem. And so we would encourage you to keep us informed and not wait until it is necessary to blow a whistle, as I said.

The CHAIRMAN. Thank you both very much for joining us this afternoon and we wish you well.

The full committee will stand adjourned.

[Whereupon, at 2:50 p.m., the committee adjourned.]

○